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\* Admitted only in Maryland  
\* Admitted only in Virginia  
\* Practice Limited to Federal Agencies

September 28, 2004

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Art Unit 1645**

Re: U.S. Utility Patent Application  
Application No. 10/717,615; Filed: November 21, 2003  
For: **Attenuated Pestiviruses**  
Inventor: Gregor Meyers  
Our Ref: 0652.1900001/EKS/J-H

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. Form PTO-1449, 8 pages, listing 23 documents (AR1-AS8);
3. First Supplemental Information Disclosure Statement;
4. First Supplemental Form PTO-1449, 4 pages, listing 9 documents (AL1 and AT8-AR11);
5. Second Supplemental Information Disclosure Statement;
6. Second Supplemental Form PTO-1449, 11 pages, listing 36 documents (AA1-AF1 and AS11-AR21);
7. One copy of each of the 23 cited documents (AR1-AS8) on Form PTO-1449;
8. One copy of each of the 9 cited documents (AL1 and AT8-AR11) on First Supplemental Form PTO-1449; and
9. Return postcard.

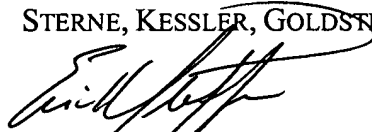
Commissioner for Patents  
September 28, 2004  
Page 2

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Eric K. Steffe  
Attorney for Applicant  
Registration No. 36,688

EKS/J-H/tis  
Enclosures

281401v1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MEYERS

Appl. No.: 10/717,615

Filed: November 21, 2003

For: **Attenuated Pestiviruses**

Art Unit: 1645

Examiner: Zeman, R.

Atty. Docket: 0652.1900001/EKS/J-H

**Information Disclosure Statement Filing Under 37 C.F.R. § 1.97(b)**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each document is provided.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 are based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

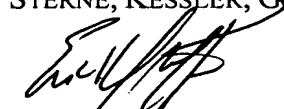
This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed after three months of the U.S. filing date, but before the first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449 and indicate in the official file wrapper of this patent application that the documents have been considered. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Eric K. Steffe  
Attorney for Applicants  
Registration No. 36,688

Date: 9/15/04

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Washington, D.C. 20005-3934  
(202) 371-2600  
271678.1



FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0652.1900001/EKS/J-HAPPLICATION NO.  
10/717,615APPLICANT  
MEYERS, G.FILING DATE  
November 21, 2003GROUP  
1645**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
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**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>1</u>	Baker, J.C., "Bovine viral diarrhea virus: A review," J. Am. Vet. Med. Assoc. 190:1449-1458, American Veterinary Medical Association (1987).
	AS	<u>1</u>	Becher, P., et al., "Further Characterization of Border Disease Virus Isolates: Evidence for the Presence of More Than Three Species Within the Genus Pestivirus," Virol. 209:200-206, Academic Press, Inc. (1995).
	AT	<u>1</u>	Donis, R.O. et al., "Neutralizing Monoclonal Antibodies to Bovine Viral Diarrhoea Virus Bind to the 56K to 58K Glycoprotein," J. Gen. Virol. 69:77-86, Society for General Microbiology (1988).

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
	APPLICANT MEYERS, G.	
	FILING DATE November 21, 2003	GROUP 1645

U.S. PATENT DOCUMENTS							
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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>2</u>	Hulst, M.M. et al., "Glycoprotein E2 of Classical Swine Fever Virus: Expression in Insect Cells and Identification as a Ribnuclease," <i>Virol.</i> 200:558-565, Academic Press, Inc. (1994).
	AS	<u>2</u>	Hulst, M.M. et al., "Inactivation of the RNase Activity of Glycoprotein E <sup>rm</sup> of Classical Swine Fever Virus Results in a Cytopathogenic Virus," <i>J. Virol.</i> 72:151-157, American Society of Microbiology (January 1998).
	AT	<u>2</u>	Kit, M. and Kit, S., "Sensitive glycoprotein gIII blocking ELISA to distinguish between pseudorabies (Aujeszky's disease) -infected and vaccinated pigs," <i>Vet. Microbiol.</i> 28:141-155, Elsevier Science Publishers B.V. (1991).

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>3</u>	Meyers, G. et al., "Molecular Cloning and Nucleotide Sequence of the Genome of Hog Cholera Virus," <i>Virol.</i> 171:555-567, Academic Press, Inc. (1989).
	AS	<u>3</u>	Meyers, G. et al., "Classical swine fever virus: recovery of infectious viruses from cDNA constructs and generation of recombinant cytopathogenic defective interfering particles," <i>J. Virol.</i> 70:1588-1595, American Society for Microbiology (1996).
	AT	<u>3</u>	Meyers, G. et al., "Recovery of Cytopathogenic and Noncytopathogenic Bovine Viral Diarrhea Viruses from cDNA Constructs," <i>J. Virol.</i> 70:8606-8613, American Society for Microbiology (1996).

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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>4</u>	Moennig, V. and Plagemann, P.G.W., "The Pestiviruses," Adv. Virus Res. 41:53-98, Academic Press, Inc. (1992).
	AS	<u>4</u>	Paton, D.J. et al., "Epitope Mapping of the gp53 Envelope Protein of Bovine Viral Diarrhea Virus," Virol. 190:763-772, Academic Press, Inc. (1992).
	AT	<u>4</u>	Pellerin, C. et al., "Identification of a New Group of Bovine Viral Diarrhea Virus Strains Associated with Severe Outbreaks and High Mortalities," Virol. 203:260-268, Academic Press, Inc. (1994).

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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>5</u>	Rice, C.M., "Flaviviridae: The Viruses and Their Replication," in <i>Fields Virology</i> (3 <sup>rd</sup> ed.), Fields, B.N., Knipe, D.M., & Howley, P.M., eds., Lippincott-Raven Publishers, Philadelphia, PA, pp. 931-959 (1996).
	AS	<u>5</u>	Rümenapf, T. et al., "Processing of the Envelope Glycoproteins of Pestiviruses," <i>J. Virol.</i> 67:3288-3294, American Society for Microbiology (1993).
	AT	<u>5</u>	Schneider, R. et al., "Identification of a Structural Glycoprotein of an RNA Virus as a Ribonuclease," <i>Science</i> 261:1169-1171, American Association for the Advancement of Science (1993).

EXAMINER	DATE CONSIDERED
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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
	APPLICANT MEYERS, G.	
	FILING DATE November 21, 2003	GROUP 1645

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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>6</u>	Stark, R. et al., "Processing of Pestivirus Polyprotein: Cleavage Site between Autoprotease and Nucleocapsid Protein of Classical Swine Fever Virus," <i>J. Virol.</i> 67:7088-7095, American Society for Microbiology (1993).
	AS	<u>6</u>	Thiel, H.-J. et al., "Hog Cholera Virus: Molecular Composition of Virions from a Pestivirus," <i>J. Virol.</i> 65:4705-4712, American Society for Microbiology (1991).
	AT	<u>6</u>	Thiel, H.-J., et al., "Pestiviruses" in <i>Fields Virology</i> , (3 <sup>rd</sup> ed.) Fields, B.N., Knipe, D.M., & Howley, P.M., eds., Lippincott-Raven Publishers, Philadelphia, PA, pp. 1059-1073 (1996).

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
	APPLICANT MEYERS, G.	
	FILING DATE November 21, 2003	GROUP 1645

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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>7</u>	van Rijn, P.A. et al., "Epitope mapping of envelope glycoprotein E1 of hog cholera virus strain Brescia," <i>J. Gen. Virol.</i> 74:2053-2060, Society for General Microbiology (1993).
	AS	<u>7</u>	Weiland, E. et al., "Development of monoclonal neutralizing antibodies against bovine viral diarrhea virus after pretreatment of mice with normal bovine cells and cyclophosphamide," <i>J. Virol. Methods</i> 24:237-244, Elsevier Science (1989).
	AT	<u>7</u>	Weiland, E. et al., "Pestivirus Glycoprotein Which Induces Neutralizing Antibodies Forms Part of a Disulfide-Linked Heterodimer," <i>J. Virol.</i> 64:3563-3569, American Society for Microbiology (1990).

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	APPLICANT MEYERS, G.	
	FILING DATE November 21, 2003	GROUP 1645

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	AL						Yes No
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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	8	Weiland, E. et al., "A Second Envelope Glycoprotein Mediates Neutralization of a Pestivirus, Hog Cholera Virus," J. Virol. 66:3677-3682, American Society for Microbiology (1992).
	AS	8	Windisch, J.M. et al., "RNase of Classical Swine Fever Virus: Biochemical Characterization and Inhibition by Virus-Neutralizing Monoclonal Antibodies," J. Virol. 70:352-358, American Society for Microbiology (1996).
	AT		

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MEYERS

Appl. No.: 10/717,615

Filed: November 21, 2003

For: **Attenuated Pestiviruses**

Art Unit: 1645

Examiner: Zeman, R.

Atty. Docket: 0652.1900001/EKS/J-H

**First Supplemental Information Disclosure Statement Filing Under 37  
C.F.R. § 1.97(b)**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this First Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Information Disclosure Statement filed herewith in connection with the above-captioned application. Copies of the documents are provided.

The Examiner's attention is directed to the following co-pending U.S. patent application:

Allowed U.S. Application No. 09/325,542, filed June 4, 1999 and submitted herewith as document **AT10**;

which is directed to related technical subject matter. The identification of this U.S. patent application is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is

respectfully requested to consider the cited application and the art cited therein during examination.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits that document **AR11** is in a foreign language. The relevance of document **AR11** may be found in the English language abstract included therein.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

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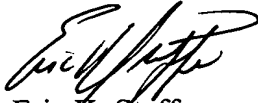
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The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

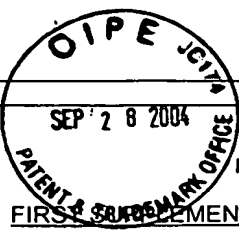
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Eric K. Steffe  
Attorney for Applicants  
Registration No. 36,688

Date: 9/28/04

1100 New York Avenue, N.W.  
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FORM PTO-1449		ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
FIRST NAMED INVENTOR MEYERS, G		FILING DATE November 21, 2003	
ART UNIT 1645			

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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	AL1	EP 0 794 257 A1	09/10/1997	Europe			Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR		
	AS		
	AT	8	Beer, M., <i>et al.</i> , "A new inactivated BVDV genotype I and II vaccine An immunisation and challenge study with BVDV genotype I," <i>Vet. Microbiol.</i> 77:195-208, Elsevier Science B.V. (November 2000)

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FORM PTO-1449  <b>FIRST SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
	FIRST NAMED INVENTOR MEYERS, G	
	FILING DATE November 21, 2003	ART UNIT 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2						
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## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>9</u>	Bolin, S.R. and Ridpath, J.F., "Assessment of protection from systemic infection or disease afforded by low to intermediate titers of passively acquired neutralizing antibody against bovine viral diarrhea virus in calves," <i>Am. J. Vet. Res.</i> 56:755-759, American Veterinary Medical Association (1995)
AS	<u>9</u>	Cortese, V.S., <i>et al.</i> , "Clinical and immunologic responses of vaccinated and unvaccinated calves to infection with a virulent type-II isolate of bovine viral diarrhea virus," <i>J. Am. Vet. Med. Assoc.</i> 213:1312-1319, American Veterinary Medical Association (November 1998)
AT	<u>9</u>	De Smit, A.J., <i>et al.</i> , "Duration of the protection of an E2 subunit marker vaccine against classical swine fever after a single vaccination," <i>Vet. Microbiol.</i> 78:307-317, Elsevier Science B.V. (February 2001)

EXAMINER	DATE CONSIDERED
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**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

ATTY. DOCKET NO.  
0652.1900001/EKS/J-HAPPLICATION NO.  
10/717,615FIRST NAMED INVENTOR  
MEYERS, GFILING DATE  
November 21, 2003ART UNIT  
1645**FIRST SUPPLEMENTAL INFORMATION DISCLOSURE  
STATEMENT****U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA4						
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	AM2						Yes No
	AN2						Yes No
	AO2						Yes No
	AP2						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>10</u>	Odeón, A.C., <i>et al.</i> , "Experimental infection of calves with bovine viral diarrhea virus genotype II (NY-93)," <i>J. Vet. Diagn. Invest.</i> 11:221-228, American Association of Veterinary Laboratory Diagnosticians (May 1999)
	AS	<u>10</u>	Copy of European Search Report for European Application No. 02 00 3408, mailed December 15, 2003, European Patent Office, Netherlands
	AT	<u>10</u>	Copy of Co-Pending Non-Provisional U.S. Patent Application No. 09/325,542, Meyers, G., filed June 4, 1999 (NOT PUBLISHED)

EXAMINER

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	AA3						
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>11</u>	Grebennikova et al., "Genetic Characteristics of Hog Cholera Virus Vaccine Strains: Comparative Analysis of Primary Sequences of Surface Glycoprotein E <sup>ms</sup> , E1 and E2 Genes," <i>Mol. Gen. Mikrobiol. Virusol.</i> , 2:34-40 Meditsina (1999).
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EXAMINER

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MEYERS

Appl. No. 10/717,615

Filed: November 21, 2003

For: **Attenuated Pestiviruses**

Art Unit: 1645

Examiner: Zeman, R.

Atty. Docket: 0652.1900001/EKS/J-H

**Second Supplemental Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Copies of documents **AA1-AF1** are not provided in accordance with the U.S. Patent and Trademark Office pre-OG notice of July 11, 2003, which states "[t]he Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003."

Copies of the remaining documents were cited by or submitted to the Office in an Information Disclosure Statement that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. 09/325,542 Meyers, filed June 4, 1999, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d). Applicants respectfully request the Examiner to refer to the file history of Application No. 09/325,542 for the Office Actions and replies to the Office Actions therein.

The numbering on this Second Supplemental Information Disclosure Statement is a continuation of the numbering in Applicant's First Supplemental Information Disclosure Statement filed herewith, in connection with the above-captioned application.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicant has listed publication dates on the attached Form PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicant reserves the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed after three months of the U.S. filing date, but before the first Office Action on the merits. No statement or fee is required.

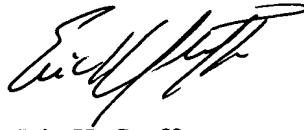
It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

MEYERS  
Appl. No. 10/717,615

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency,  
or credit any overpayment, to our Deposit Account No. 19-0036.

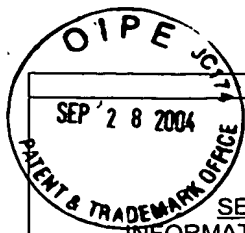
Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Eric K. Steffe  
Attorney for Applicant  
Registration No. 36,688

Date: 9/27/04  
1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600



SEP 28 2004

FORM PTO-1449

SECOND SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
0652.1900001/EKS/J-HAPPLICATION NO.  
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Meyers, G.FILING DATE  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	4,719,177	01/12/1988	Baltimore <i>et al.</i>			11/12/1981
	AB1	5,206,163	04/27/1993	Renard <i>et al.</i>			06/06/1990
	AC1	6,001,613	12/14/1999	Donis <i>et al.</i>			05/21/1997
	AD1	6,168,942	01/02/2001	Cao <i>et al.</i>			11/04/1999
	AE1	6,610,305	08/26/2003	Elbers <i>et al.</i>			11/06/2000
	AF1	2004/0038198	02/26/2004	Elbers <i>et al.</i>			09/06/2002
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	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>11</u>	
	AS	<u>11</u>	Behrens, S-E., <i>et al.</i> , "Characterization of an Autonomous Subgenomic Pestivirus RNA Replicon," <i>J. Virol.</i> 72:2364-2372, American Society for Microbiology (March 1998)
	AT	<u>11</u>	Boyer, J-C., and Haenni, A-L., "Minireview: Infectious Transcripts and cDNA Clones of RNA Viruses," <i>Virol.</i> 198:415-428, Elsevier Science B.V. (1994)

EXAMINER

DATE CONSIDERED

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FORM PTO-1449  <b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
	FIRST NAMED INVENTOR Meyers, G.	
	FILING DATE November 21, 2003	ART UNIT 1645

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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>12</u>	Brock, K.V., <i>et al.</i> , "Nucleotide sequencing of 5' and 3' termini of bovine viral diarrhea virus by RNA ligation and PCR," <i>J. Virol. Methods</i> 38:39-46, North-Holland Biomedical Press (1992)
	AS	<u>12</u>	Chambers, T.J., <i>et al.</i> , "Mutagenesis of the yellow fever virus NS2B protein: effects on proteolytic processing, NS2B-NS3 complex formation, and viral replication," <i>J. Virol.</i> 67:6797-6807, American Society for Microbiology (1993)
	AT	<u>12</u>	Chon, S.K., <i>et al.</i> , "Genetic analysis of the internal ribosome entry segment of bovine viral diarrhea virus," <i>Virology</i> 251:370-382, Elsevier Science B.V. (November 1998)

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	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>13</u>	Collett, M.S., <i>et al.</i> , "Molecular cloning and nucleotide sequence of the pestivirus bovine viral diarrhea virus," <i>Virology</i> 165:191-199, Elsevier Science B.V. (1988)
	AS	<u>13</u>	Cortese, V.S., <i>et al.</i> , "Specificity And Duration Of Neutralizing Antibodies Induced In Healthy Cattle After Administration Of A Modified-Live Virus Vaccine Against Bovine Viral Diarrhea," <i>Am. J. Vet. Res.</i> 59:848-850, American Veterinary Medical Association (July 1998)
	AT	<u>13</u>	Fekadu, M., <i>et al.</i> , "Immunogenicity, Efficacy And Safety Of An Oral Rabies Vaccine (SAG-2) In Dogs," <i>Vaccine</i> 14:465-468, Elsevier Science B.V. (1996)

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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>14</u>	Gu, B., <i>et al.</i> , "The RNA Helicase and Nucleotide Triphosphatase Activities of the Bovine Viral Diarrhea Virus NS3 Protein Are Essential for Viral Replication," <i>J. Virol.</i> 74:1794-1800, American Society for Microbiology (February 2000)
	AS	<u>14</u>	Houe, H., <i>et al.</i> , "Application Of Antibody Titers Against Bovine Viral Diarrhea Virus (BVDV) As a Measure To Detect Herds With Cattle Persistently Infected With BVDV," <i>J. Vet. Diagn. Invest.</i> 7:327-332, American Association Of Veterinary Laboratory Diagnosticians (1995)
	AT	<u>14</u>	Huang, Q.S., <i>et al.</i> , "An in vitro ligation and transfection system for inserting DNA sequences into the latency-associated transcripts (LATs) gene of herpes simplex virus type 1," <i>Gene Ther.</i> 1:300-306, Nature Publishing Group (1994)

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	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>15</u>	Kümmerer, B.M., and Meyers, G., "Correlation between Point Mutations in NS2 and the Viability and Cytopathogenicity of Bovine Viral Diarrhea Virus Strain Oregon Analyzed with an Infectious cDNA Clone," <i>J. Virol.</i> 74:390-400, American Society for Microbiology (January 2000)
	AS	<u>15</u>	Kupfermann, H., <i>et al.</i> , "Bovine viral diarrhea virus: characterization of a cytopathogenic defective interfering particle with two internal deletions," <i>J. Virol.</i> 70:8175-8181, American Society for Microbiology (1996)
	AT	<u>15</u>	Lai, C.J., <i>et al.</i> , "Infectious RNA transcribed from stably cloned full-length cDNA of dengue type 4 virus," <i>Proc. Natl. Acad. Sci.</i> 88:5139-5143, National Academy of Sciences (1991)

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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>16</u>	Men, R., <i>et al.</i> , "Dengue type 4 virus mutants containing deletions in the 3' noncoding region of the RNA genome: analysis of growth restriction in cell culture and altered viremia pattern and immunogenicity in rhesus monkeys," <i>J. Virol.</i> 70:3930-3937, American Society for Microbiology (1996)
	AS	<u>16</u>	Mendez, E., <i>et al.</i> , " Infectious Bovine Viral Diarrhea Virus (Strain NADL) RNA from Stable cDNA Clones: a Cellular Insert Determines NS3 Production and Viral Cytopathogenicity," <i>J. Virol.</i> 72:4737-4745, American Society for Microbiology (June 1998)
	AT	<u>16</u>	Meyers, G., and Thiel, H-J., "Molecular Characterization of Pestiviruses," <i>Adv. Virus Res.</i> 47:53-118, Academic Press (1996)

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	AO						Yes No
	AP						Yes No

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	AR	<u>17</u>	Moormann, R.J., <i>et al.</i> , "Infectious RNA transcribed from an engineered full-length cDNA template of the genome of a pestivirus," <i>J. Virol.</i> 70:763-770, American Society for Microbiology (1996)
	AS	<u>17</u>	Moser, C., <i>et al.</i> , "A Recombinant Classical Swine Fever Virus Stably Expresses a Marker Gene," <i>J. Virol.</i> 72:5318-5322, American Society for Microbiology (June 1998)
	AT	<u>17</u>	Murphy, F.A., <i>et al.</i> , <i>Veterinary Virology</i> , Academic Press, San Diego, CA, pp.564-566 (May 1999)

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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>18</u>	Paoletti, E., <i>et al.</i> , "Highly attenuated poxvirus vectors: NYVAC, ALVAC and TROVAC," <i>Dev. Biol. Stand.</i> 84:159-163, Basel Karger (1995)
	AS	<u>18</u>	Ramig, R.F., "Principles of Animal Virus Genetics," in <i>Fundamental Virology</i> , Knipe, D.M., <i>et al.</i> , eds., Lippincott Williams & Wilkins, Philadelphia, PA, p. 96 (1991)
	AT	<u>18</u>	Rice, C.M., <i>et al.</i> , "Transcription of infectious yellow fever RNA from full-length cDNA templates produced by <i>in vitro</i> ligation," <i>New Biol.</i> 1:285-296, W.B. Saunders (1989)

EXAMINER

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	AR	<u>19</u>	Ruggli, N., <i>et al.</i> , "Nucleotide sequence of classical swine fever virus strain Alfort/187 and transcription of infectious RNA from stably cloned full-length cDNA," <i>J. Virol.</i> 70:3478-3487, American Society for Microbiology (1996)
	AS	<u>19</u>	Rümenapf, T., <i>et al.</i> , "N-Terminal Protease of Pestiviruses: Identification of Putative Catalytic Residues by Site-Directed Mutagenesis," <i>J. Virol.</i> 72:2544-2547, American Society for Microbiology (March 1998)
	AT	<u>19</u>	Sumiyoshi, H., <i>et al.</i> , "Infectious Japanese encephalitis virus RNA can be synthesized from in vitro-ligated cDNA templates," <i>J. Virol.</i> 66:5425-5431, American Society for Microbiology (1992)

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FORM PTO-1449  <b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>	ATTY. DOCKET NO. 0652.1900001/EKS/J-H	APPLICATION NO. 10/717,615
	FIRST NAMED INVENTOR Meyers, G.	
	FILING DATE November 21, 2003	ART UNIT 1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>20</u>	Tratschin, J-D., <i>et al.</i> , "Classical Swine Fever Virus Leader Proteinase N <sup>pro</sup> Is Not Required for Viral Replication in Cell Culture," <i>J. Virol.</i> 72:7681-7684, American Society for Microbiology (September 1998)
	AS	<u>20</u>	van Oirschot, J.T., <i>et al.</i> , "Vaccination of cattle against bovine viral diarrhea," <i>Vet. Microbiol.</i> 64:169-183, Elsevier Science B.V. (January 1999)
	AT	<u>20</u>	Vassilev, V.B., "Authentic and chimeric full-length genomic cDNA clones of bovine viral diarrhea virus that yield infectious transcripts," <i>J. Virol.</i> 71:471-478, American Society for Microbiology (June 1997)

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

**SECOND SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

ATTY. DOCKET NO.  
0652.1900001/EKS/J-H

APPLICATION NO.  
10/717,615

FIRST NAMED INVENTOR  
Meyers, G.

FILING DATE  
November 21, 2003

ART UNIT  
1645

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	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>21</u>	Yu, Z., <i>et al.</i> , "Genetic engineering of a <i>Lymantria dispar</i> nuclear polyhedrosis virus for expression of foreign genes," <i>J. Gen. Virol.</i> 73:1509-1514, Society For General Microbiology (1992)
	AS		
	AT		

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DATE CONSIDERED

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